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Fire Extinguisher Training

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Why Train?

Fire extinguisher training must be provided in accordance with 29 CFR 1910.157(g) if the employer has provided extinguishers for employee use in the workplace.

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What causes a fire to occur?

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Elements of Fire

These three things must be present for a fire to occur:

Enough oxygen to sustain combustion.

An ignition source or heat.

Some sort of fuel.

Put these three elements together and they form the "Fire Triangle."

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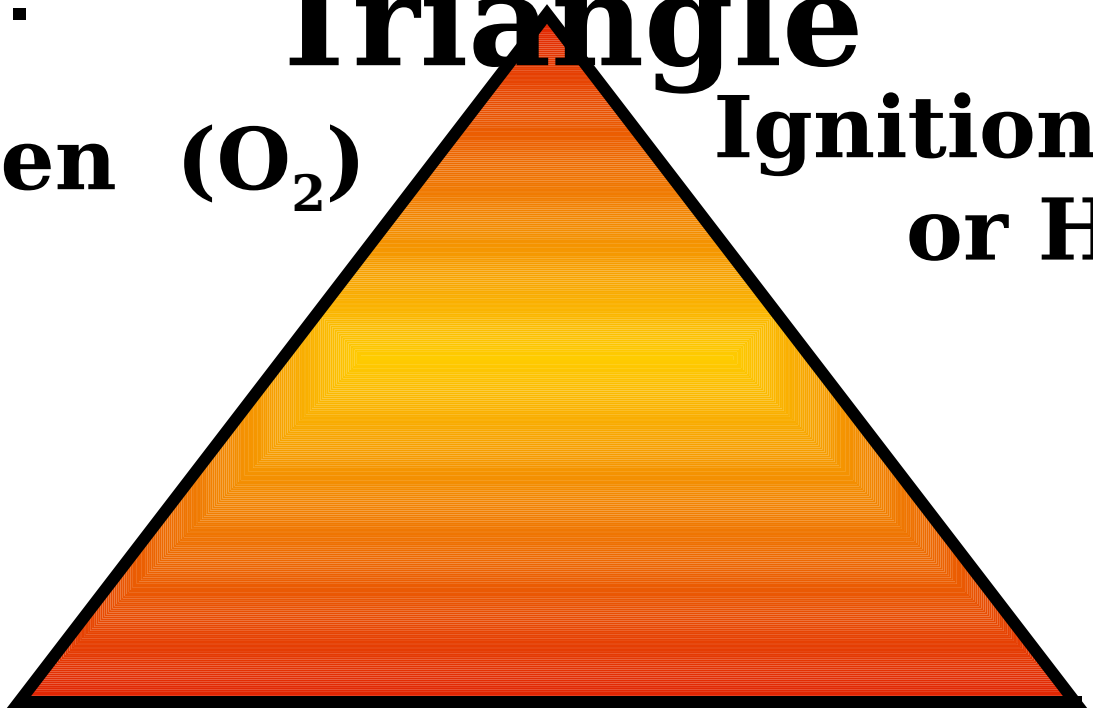
The Fire Triangle

Oxygen (O_2)

Ignition Source or Heat



Fuel

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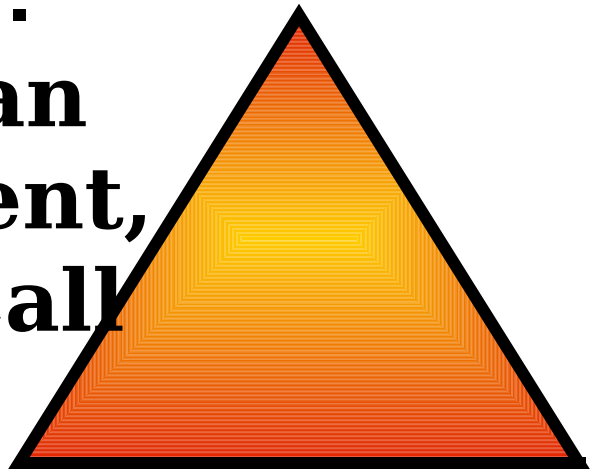
How Fire Extinguishers W

When oxygen, fuel, and an ignition source are present, a chemical reaction we call fire occurs.



A fire extinguisher works by removing one or more of the sides of the fire triangle.

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Classification of Fuels

There are four classes of fuels that can be involved in a fire. The type of fuel will determine which type of extinguisher that will be use to put the fire out.

The wrong extinguisher can make matters worse.

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Classification of Fuels

- **Class A** - Ordinary combustible materials:
  - Wood, paper, cloth, plastics, etc.
- **Class B** - Flammable liquids:
  - Gasoline, kerosene, diesel fuel, etc.
- **Class C** - Energized electrical equipment.
- **Class D** - Metals:
  - Sodium, Aluminum shavings, magnesium, etc.

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Types of Extinguishers

- Different extinguishers are designed to fight different classes of fires.
- Three most common types of extinguishers are:
  - Air-Pressurized Water (APW)
  - Carbon Dioxide (CO2)
  - Dry Chemical (ABC, BC, DC)

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APW Extinguishers

- Designed for Class A fires only.
- Work by taking away the heat element.
- Typically are silver canisters about 2 feet tall and weigh about 23 pounds when full

Not for use on Class B, C or D fires!

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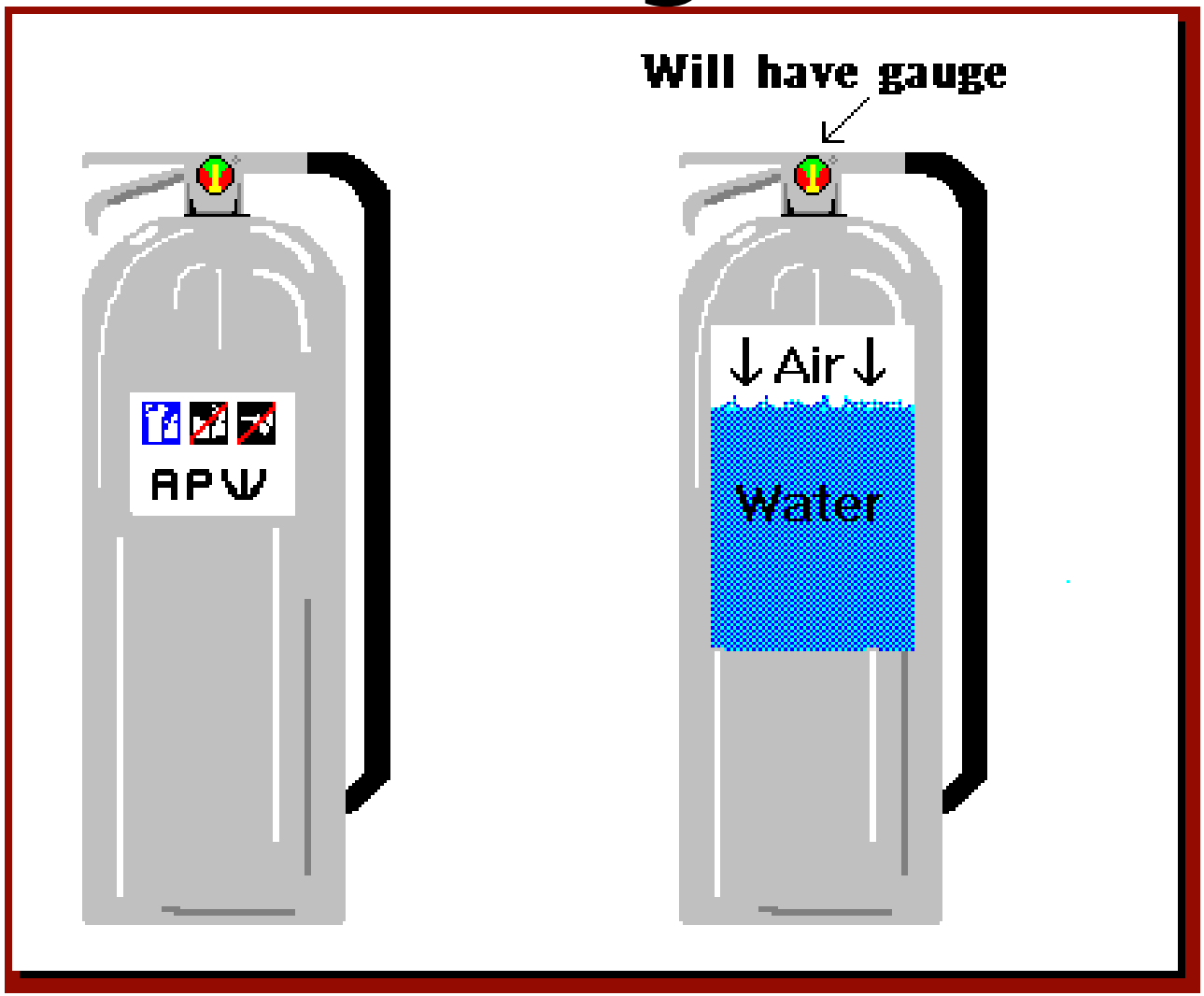
APW Extinguishers



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CO_2 Extinguishers

- Not for use on Class A fires.
- Work by displacing the oxygen.
- Typically are red cylinders weighing from 5 to 50 pounds with a hard horn on the end of a flexible hose.

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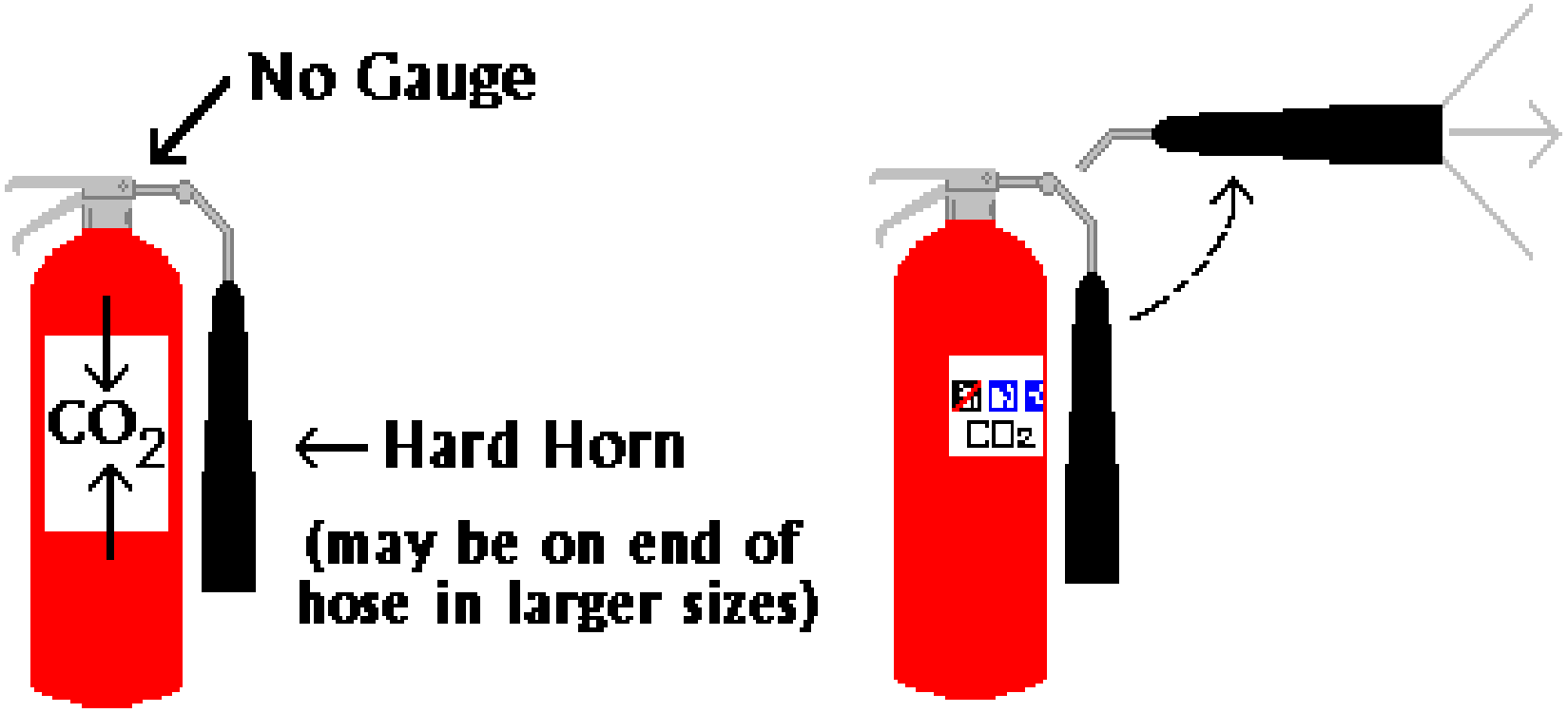
CO_2 Extinguishers

Carbon Dioxide Extinguisher



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Dry Chemical Extinguishers

- Dry Chemical extinguishers come in a variety of types. They may be labeled as:
  - "DC" for Dry Chemical.
  - "ABC" for use on Class A, B, or C fires.
  - "BC" for use on Class B and C fires.

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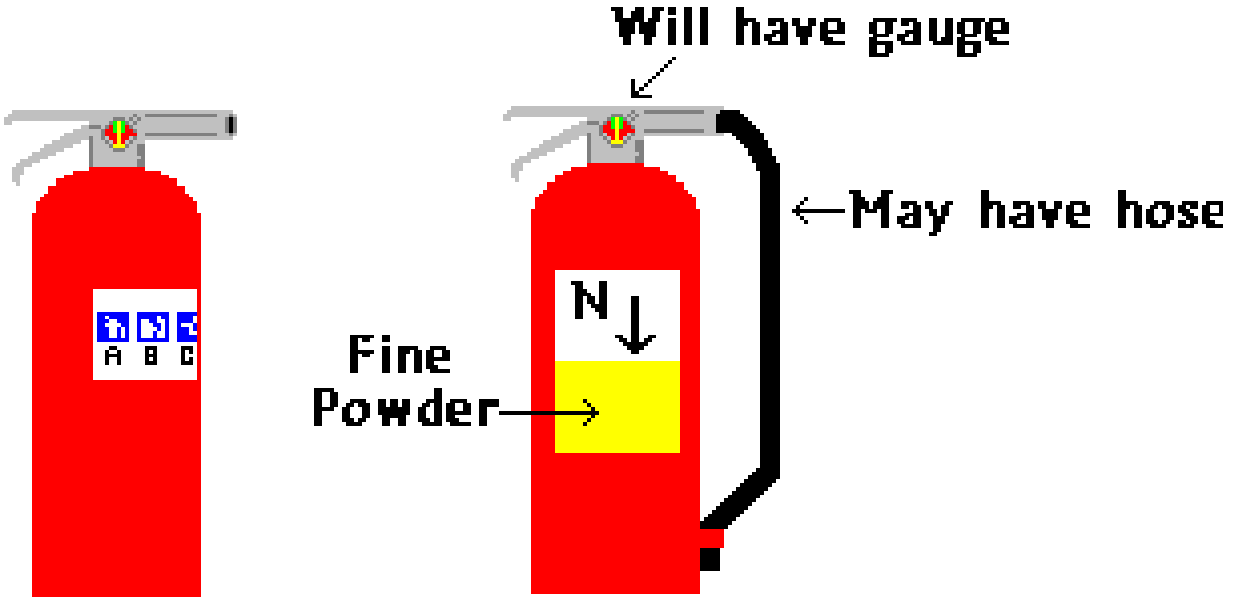
Dry Chemical Extinguishers

Dry Chemical Extinguisher (ABC)



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Fighting Fires

- Activate fire alarm system.
- Assist anyone in danger without endangering yourself.
- Only after these actions have been completed, and if the fire is small, attempt to put the fire out.

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Fighting Fires

- Do not use a fire extinguisher to fight a fire if:
  - There is a large amount of smoke.
  - The fire is spreading rapidly.
  - You don’t know what is burning.
  - You don’t have the right equipment.

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Using an Extinguisher

To effectively use a fire extinguisher, use the acronym **P-A-S-S**.

Pull the safety pin.

Aim at the base of the flames.

Squeeze the top handle or lever.

Sweep from side to side.

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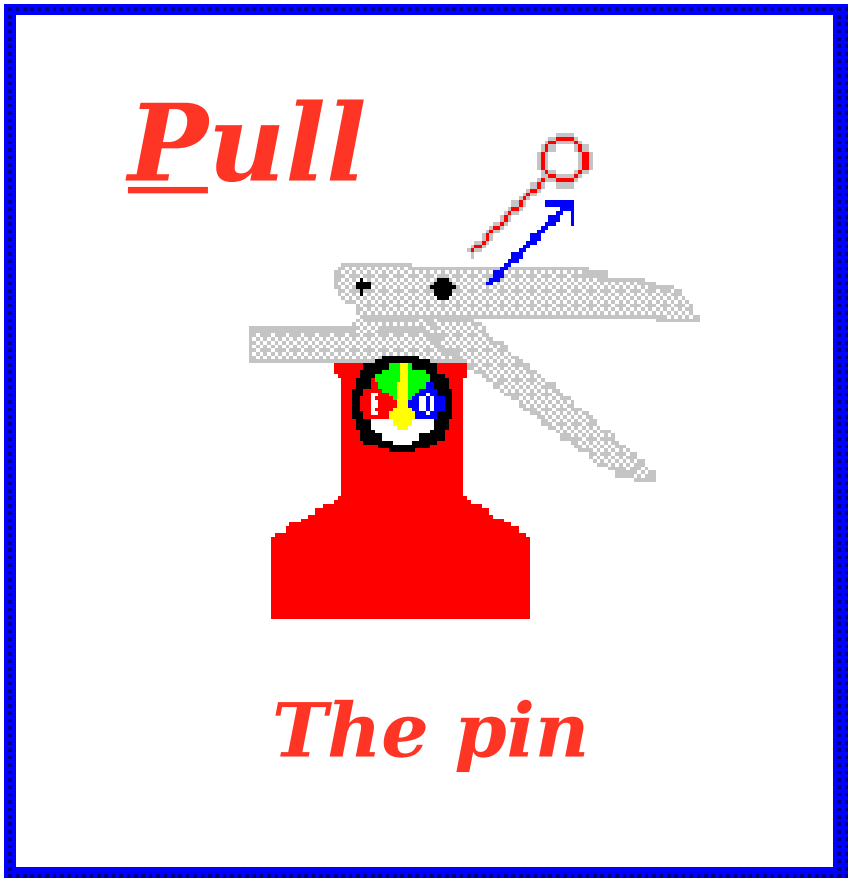
Using an Extinguisher

Pull the safety pin.



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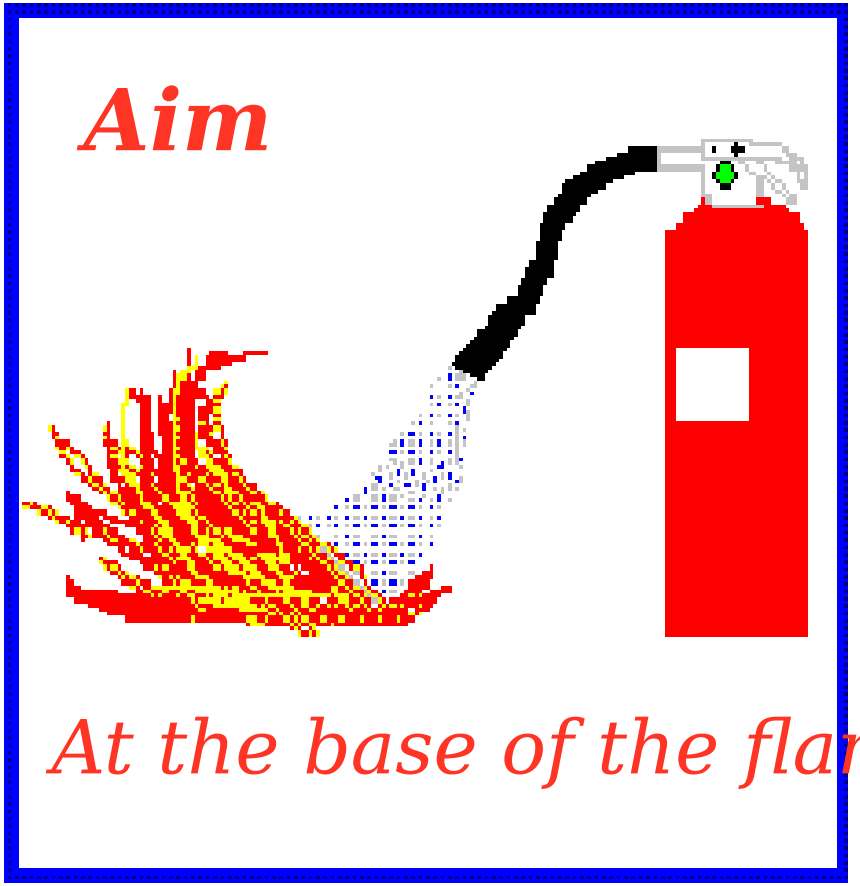
Using an Extinguisher

Aim at the base of the flames.



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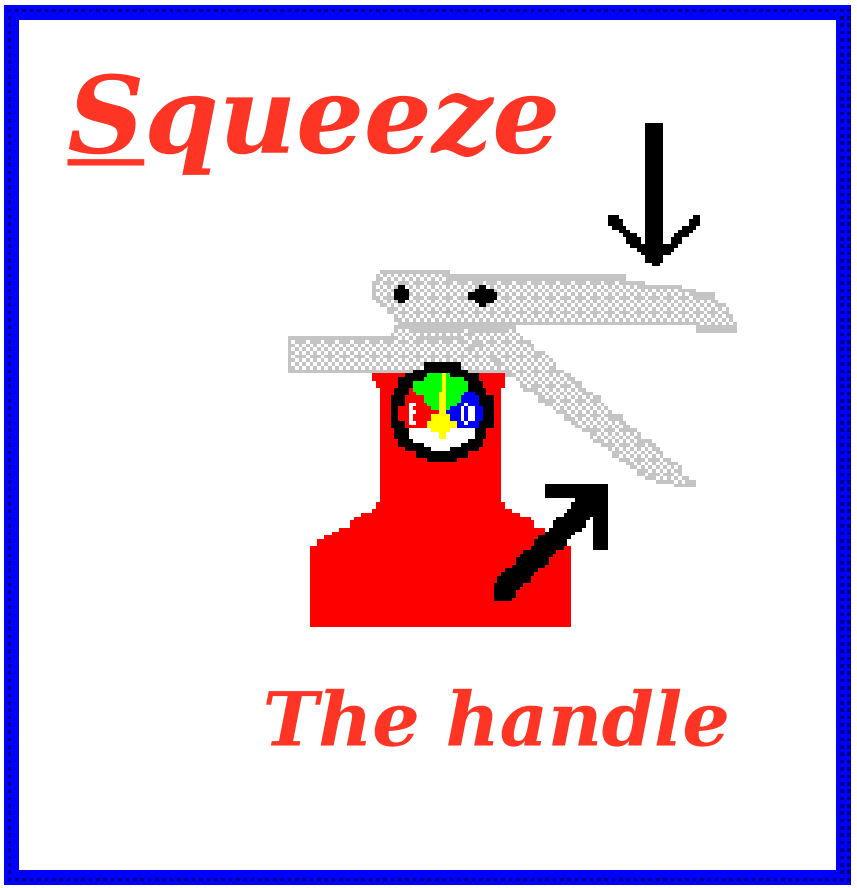
Using an Extinguisher

Squeeze the top handle or lever.



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Using an Extinguisher

Sweep from side to side.

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Fire Extinguishers must be…

- …accessible and easy to find (in plain sight)
- …unobstructed
- …mounted high enough to be seen but not so high as to make them difficult to reach
- …clearly marked

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Distribution of Fire Extinguishers

- Class A – travel distance of 75 feet or less – 1910.157 (d) (2)
- Class B – travel distance of 50 feet or less – 1910.157 (d) (4)
- Class C – appropriate pattern for Class A & B Fire – 1919.157 (d) (5)
- Class D – travel distance of 75 feet or less – 1910.157 (d) (6)

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Priorities When Fighting a Fire

- Human Health, Life and Safety:

Your Safety!

Other's Safety!

Always maintain a safe route of egress!

Protection of property is always a secondary consideration!